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Yoshihisa Murohashi

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LOUIS WOO

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ALEXANDRIA, VA 22314

EXAMINER

OLANIRAN, FATIMAT O

ART UNIT

PAPER NUMBER

4178

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/799,773	<b>Applicant(s)</b> MUROHASHI ET AL.	
	<b>Examiner</b> FATIMAT O. OLANIRAN	<b>Art Unit</b> 4178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/4/2004 &amp; 9/28/2007</u> .                                | 6) <input type="checkbox"/> Other: ____.                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 5-8 are directed towards non-statutory subject matter. Claims 5-8 claim “a computer program for setting a sound ...” However, the claims do not define a computer-program product to be a functional descriptive material encoded on a memory/disk/computer-readable medium, see Applicant ‘s specification, and is thus non-statutory for that reason (i.e., “When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized”). Moreover, a “Computer program” is neither a process (“action”), nor machine, nor manufacture, nor composition of matter (i.e., tangible “thing”) and therefore non-statutory.

Because the full scope of the claim as properly read in light of the disclosure encompasses non-statutory subject matter, the claim as a whole is non-statutory, under the present USPTO Interim Guidelines, 1300 Official Gazette Patent and Trademark Office 142 (Nov. 22, 2005).

The Examiner suggests amending the claim to include the disclosed tangible computer readable media, while at the same time excluding the intangible media such as signals, carrier waves, etc... defined in the specification.

Any amendment to the claim should be commensurate with its corresponding disclosure.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al (7123731) in view of Gu (6968065) in further view of Baekgaard (6272229). Claim 1, Cohen discloses a method of setting a sound field (col. 1 line 7-9) generated when audio signals of plural channels which are outputted from an audio signal reproducing apparatus are reproduced from loudspeakers of the respective channels (col. 2 line 50-54).

Cohen does not disclose the method comprising the steps of: cutting off the feed of the audio signals from the audio signal reproducing apparatus to the loudspeakers of the respective channels; capturing a test sound generated by a listener at a listening point by the loudspeakers of the respective channels as sound pickup data; detecting and comparing volume levels at predetermined points of the sound pickup data captured by the loudspeakers of the respective channels, and thereby generating volume adjusting data of the audio signals of the respective channels; and

controlling volumes of the audio signals of the respective channels in response to the volume adjusting data respectively.

Gu discloses cutting off the feed of the audio signals from the audio signal reproducing apparatus to the loudspeakers of the respective channels (col. 4 line 29-33). Therefore it would be obvious to one ordinarily skilled in the art at the time the invention was made to modify the loudspeaker sound system of Cohen with the loudspeaker/microphone and switch of Gu in order to reduce the system components. Cohen in view of Gu do not disclose capturing a test sound generated by a listener at a listening point by the loudspeakers of the respective channels as sound pickup data; detecting and comparing volume levels at predetermined points of the sound pickup data captured by the loudspeakers of the respective channels, and thereby generating volume adjusting data of the audio signals of the respective channels; and controlling volumes of the audio signals of the respective channels in response to the volume adjusting data respectively.

Baekgaard discloses capturing a test sound generated by a listener at a listening point by the loudspeakers of the respective channels as sound pickup data (col. 3 line 7-9, microphones are functionally equivalent to loudspeakers); detecting and comparing volume levels at predetermined points of the sound pickup data captured by the loudspeakers of the respective channels, and thereby generating volume adjusting data of the audio signals of the respective channels; and controlling volumes of the audio signals of the respective channels in response to the volume adjusting data respectively (col. 4 line 25-35).

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Therefore it would be obvious to one of ordinarily skilled in the art at the time the invention was made to modify the loudspeaker system of Cohen in view of Gu with the signal processing apparatus of Baekgaard in order to be able to adjust transducer characteristics for optimal listening.

Claim 2 analyzed with respect to claim 1, Cohen in view of Gu and Baekgaard discloses detecting and comparing timings of the data values at the predetermined points of the sound pickup data captured by the loudspeakers of the respective channels, and thereby generating delay time setting data of the audio signals of the respective channels (Baekgaard, col. 3 line 27-31); and controlling delay times of the audio signals of the respective channels in response to the delay time setting data respectively (Baekgaard, col. 3 line 37-42).

Claim 3 analyzed with respect to claim 1, Cohen in view of Gu and Baekgaard discloses the predetermined points are points of timings at which exceeding a prescribed threshold occurs (Baekgaard, col. 4 line 30-35).

Claim 4 analyzed with respect to claim 2 and 1, Cohen in view of Gu and Baekgaard discloses wherein the predetermined points are points of timings at which exceeding a prescribed threshold occurs (Baekgaard, col. 3 line 37-42).

Claim 5, Cohen discloses a computer program for setting a sound field (Fig. 12, col. 1 line 7-9) generated when audio signals of plural channels which are outputted from an

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audio signal reproducing apparatus are reproduced from loudspeakers of the respective channels (col. 2 line 50-54),

Cohen does not disclose the computer program comprising the steps of: cutting off the feed of the audio signals from the audio signal reproducing apparatus to the loudspeakers of the respective channels; capturing a test sound generated by a listener at a listening point by the loudspeakers of the respective channels as sound pickup data; detecting and comparing volume levels at predetermined points of the sound pickup data captured by the loudspeakers of the respective channels, and thereby generating volume adjusting data of the audio signals of the respective channels; and controlling volumes of the audio signals of the respective channels in response to the volume adjusting data respectively.

Gu discloses cutting off the feed of the audio signals from the audio signal reproducing apparatus to the loudspeakers of the respective channels; (col. 4 line 29-33). Therefore it would be obvious to one ordinarily skilled in the art at the time the invention was made to modify the loudspeaker sound system of Cohen with the loudspeaker/microphone and switch of Gu in order to reduce the system components.

Cohen in view of Gu do not disclose capturing a test sound generated by a listener at a listening point by the loudspeakers of the respective channels as sound pickup data; detecting and comparing volume levels at predetermined points of the sound pickup data captured by the loudspeakers of the respective channels, and thereby generating volume adjusting data of the audio signals of the respective channels; and

controlling volumes of the audio signals of the respective channels in response to the volume adjusting data respectively.

Baekgaard discloses capturing a test sound generated by a listener at a listening point by the loudspeakers of the respective channels as sound pickup data (col. 3 line 7-9, microphones are functionally equivalent to loudspeakers);

detecting and comparing volume levels at predetermined points of the sound pickup data captured by the loudspeakers of the respective channels, and thereby generating volume adjusting data of the audio signals of the respective channels; and

controlling volumes of the audio signals of the respective channels in response to the volume adjusting data respectively (col. 4 line 25-35).

Therefore it would be obvious to one of ordinarily skilled in the art at the time the invention was made to modify the loudspeaker system of Cohen in view of Gu with the signal processing apparatus of Baekgaard in order to be able to adjust transducer characteristics for optimal listening.

Claim 6 analyzed with respect to claim 5, Cohen in view of Gu and Baekgaard discloses detecting and comparing timings of the data values at the predetermined points of the sound pickup data captured by the loudspeakers of the respective channels, and thereby generating delay time setting data of the audio signals of the respective channels (Baekgaard, col. 3 line 27-31); and controlling delay times of the audio signals of the respective channels in response to the delay time setting data respectively (Baekgaard, col. 3 line 37-42).



Claim 7 analyzed with respect to claim 5, Cohen in view of Gu and Baekgaard disclose wherein the predetermined points are points of timings at which exceeding a prescribed threshold occurs (Baekgaard, col. 4 line 30-35).

Claim 8 analyzed with respect to claim 6 and 1, Cohen in view of Gu and Baekgaard disclose wherein the predetermined points are points of timings at which exceeding a prescribed threshold occurs (Baekgaard, col. 3 line 37-42).

Claim 9, Cohen discloses an audio reproducing apparatus provided with a system for setting a sound field (col. 1 line 7-9) generated when audio signals of plural channels which are outputted from the audio reproducing apparatus are reproduced from loudspeakers of the respective channels (col. 2 line 50-54), the audio reproducing apparatus comprising:

Cohen does not disclose means for cutting off the feed of the audio signals from the audio signal reproducing apparatus to the loudspeakers of the respective channels; means for capturing a test sound generated by a listener at a listening point by the loudspeakers of the respective channels as sound pickup data;

a detector for detecting volume levels at predetermined points of the sound pickup data captured by the loudspeakers of the respective channels;

a generator for comparing the detected volume levels, and thereby generating volume adjusting data of the audio signals of the respective channels; and

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a controller for controlling volumes of the audio signals of the respective channels in response to the volume adjusting data respectively.

Gu discloses means for cutting off the feed of the audio signals from the audio signal reproducing apparatus to the loudspeakers of the respective channels; (col. 4 line 29-33). Therefore it would be obvious to one ordinarily skilled in the art at the time the invention was made to modify the loudspeaker sound system of Cohen with the loudspeaker/microphone and switch of Gu in order to reduce the system components. Cohen in view of Gu do not disclose means for capturing a test sound generated by a listener at a listening point by the loudspeakers of the respective channels as sound pickup data; a detector for detecting volume levels at predetermined points of the sound pickup data captured by the loudspeakers of the respective channels; a generator for comparing the detected volume levels, and thereby generating volume adjusting data of the audio signals of the respective channels; and a controller for controlling volumes of the audio signals of the respective channels in response to the volume adjusting data respectively.

Baekgaard discloses means for capturing a test sound generated by a listener at a listening point by the loudspeakers of the respective channels as sound pickup data (col. 3 line 7-9); a detector for detecting volume levels at predetermined points of the sound pickup data captured by the loudspeakers of the respective channels; a generator for comparing the detected volume levels, and thereby generating volume adjusting data of the audio signals of the respective channels; and

a controller for controlling volumes of the audio signals of the respective channels in response to the volume adjusting data respectively (col. 4 line 25-35).

Therefore it would be obvious to one of ordinarily skilled in the art at the time the invention was made to modify the loudspeaker system of Cohen in view of Gu with the signal processing apparatus of Baekgaard in order to be able to adjust transducer characteristics for optimal listening.

Claim 10 analyzed with respect to claim 9, Cohen in view of Gu and Baekgaard disclose a detector for detecting timings of the data values at the predetermined points of the sound pickup data captured by the loudspeakers of the respective channels; a generator for comparing the detected timings of the data values, and thereby generating delay time setting data of the audio signals of the respective channels (Baekgaard, col. 3 line 27-31); and a controller for controlling delay times of the audio signals of the respective channels in response to the delay time setting data respectively (Baekgaard, col. 3 line 37-42).

Claim 11 analyzed with respect to claim 9, Cohen in view of Gu and Baekgaard disclose wherein the predetermined points are points of timings at which exceeding a prescribed threshold occurs (Baekgaard, col. 4 line 30-35).

Claim 12 analyzed with respect to claim 10 and 9, Cohen in view of Gu and Baekgaard disclose wherein the predetermined points are points of timings at which exceeding a prescribed threshold occurs (Baekgaard, col. 3 line 37-42).

Claim 13 Cohen discloses a sound-field setting system comprising:

loudspeakers of plural channels (col. 1 line 7-9);

Cohen does not disclose means for cutting off the feed of the audio signals from the audio signal reproducing apparatus to the loudspeakers of the respective channels; means for capturing a test sound generated by a listener at a listening point by the loudspeakers of the respective channels as sound pickup data; a detector for detecting volume levels at predetermined points of the sound pickup data captured by the loudspeakers of the respective channels; a generator for comparing the detected volume levels, and thereby generating volume adjusting data of the audio signals of the respective channels; and a controller for controlling volumes of the audio signals of the respective channels in response to the volume adjusting data respectively.

Gu discloses means for cutting off the feed of the audio signals from the audio signal reproducing apparatus to the loudspeakers of the respective channels; (col. 4 line 29-33). Therefore it would be obvious to one ordinarily skilled in the art at the time the invention was made to modify the loudspeaker sound system of Cohen with the loudspeaker/microphone and switch of Gu in order to reduce the system components. Cohen in view of Gu do not disclose means for capturing a test sound generated by a listener at a listening point by the loudspeakers of the respective channels as sound

pickup data; a detector for detecting volume levels at predetermined points of the sound pickup data captured by the loudspeakers of the respective channels; a generator for comparing the detected volume levels, and thereby generating volume adjusting data of the audio signals of the respective channels; and a controller for controlling volumes of the audio signals of the respective channels in response to the volume adjusting data respectively.

Baekgaard discloses means for capturing a test sound generated by a listener at a listening point by the loudspeakers of the respective channels as sound pickup data (col. 3 line 7-9); a detector for detecting volume levels at predetermined points of the sound pickup data captured by the loudspeakers of the respective channels; a generator for comparing the detected volume levels, and thereby generating volume adjusting data of the audio signals of the respective channels; and a controller for controlling volumes of the audio signals of the respective channels in response to the volume adjusting data respectively (col. 4 line 25-35).

Therefore it would be obvious to one of ordinarily skilled in the art at the time the invention was made to modify the loudspeaker system of Cohen in view of Gu with the signal processing apparatus of Baekgaard in order to be able to adjust transducer characteristics for optimal listening.

Claim 14 analyzed with respect to claim 13, Cohen in view of Gu and Baekgaard disclose a detector for detecting timings of the data values at the predetermined points of the sound pickup data captured by the loudspeakers of the respective channels; a generator for comparing the detected timings of the data values, and thereby generating

delay time setting data of the audio signals of the respective channels (Baekgaard, col. 3 line 27-31); and a controller for controlling delay times of the audio signals of the respective channels in response to the delay time setting data respectively (Baekgaard, col. 3 line 37-42).

Claim 15 analyzed with respect to claim 13, Cohen in view of Gu and Baekgaard disclose wherein the predetermined points are points of timings at which exceeding a prescribed threshold occurs (Baekgaard, col. 4 line 30-35).

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Claim 16 analyzed with respect to claim 14 and 13, Cohen in view of Gu and Baekgaard disclose wherein the predetermined points are points of timings at which exceeding a prescribed threshold occurs (Baekgaard, col. 3 line 37-42).

Claim 17 Cohen discloses a sound field setting system comprising: loudspeakers of plural channels (col. 1 line 7-9);

Cohen does not disclose first means for using the loudspeakers as microphones to convert a test sound generated at a desired listening point into corresponding electric signals respectively; second means for detecting amplitudes of the electric signals generated by the loudspeakers; third means for setting desired gains for input audio signals of the plural channels in response to the amplitudes detected by the second means; fourth means for amplifying the input audio signals at the desired gains set by

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the third means to generate amplified audio signals respectively; and fifth means for feeding the amplified audio signals generated by the fourth means to the loudspeakers respectively.

Gu discloses means for using the loudspeakers as microphones (col. 2 line 9-13).

Therefore it would be obvious to one ordinarily skilled in the art at the time the invention was made to modify the loudspeaker sound system of Cohen with the

loudspeaker/microphone and switch of Gu in order to reduce the system components.

Cohen in view of Gu do not disclose convert a test sound generated at a desired listening point into corresponding electric signals respectively; second means for detecting amplitudes of the electric signals generated by the loudspeakers; third means for setting desired gains for input audio signals of the plural channels in response to the amplitudes detected by the second means; fourth means for amplifying the input audio signals at the desired gains set by the third means to generate amplified audio signals respectively; and fifth means for feeding the amplified audio signals generated by the fourth means to the loudspeakers respectively.

Baekgaard discloses convert a test sound generated at a desired listening point into corresponding electric signals respectively (col. 3 line 7-9, microphones); second means for detecting amplitudes of the electric signals generated by the loudspeakers; third means for setting desired gains for input audio signals of the plural channels in response to the amplitudes detected by the second means; fourth means for amplifying the input audio signals at the desired gains set by the third means to generate amplified

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audio signals respectively; and fifth means for feeding the amplified audio signals generated by the fourth means to the loudspeakers respectively (col. 4 line 25-35).

Therefore it would be obvious to one of ordinarily skilled in the art at the time the invention was made to modify the loudspeaker system of Cohen in view of Gu with the signal processing apparatus of Baekgaard in order to be able to adjust transducer characteristics for optimal listening.

Claim 18, Cohen discloses a sound-field setting system comprising: loudspeakers of plural channels (col. 1 line 7-9);

Cohen does not disclose first means for using the loudspeakers as microphones to convert a test sound generated at a desired listening point into corresponding electric signals respectively; second means for detecting moments of arrival of the test sound at the loudspeakers in response to the electric signals generated by the loudspeakers respectively; third means for delaying input audio signals by delay times depending on the moments detected by the second means to generate delayed audio signals respectively; and fourth means for feeding the delayed audio signals to the loudspeakers respectively.

Gu discloses means for using the loudspeakers as microphones (col. 2 line 9-13).

Therefore it would be obvious to one ordinarily skilled in the art at the time the invention was made to modify the loudspeaker sound system of Cohen with the loudspeaker/microphone and switch of Gu in order to reduce the system components.



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Cohen in view of Gu do not disclose convert a test sound generated at a desired listening point into corresponding electric signals respectively; second means for detecting moments of arrival of the test sound at the loudspeakers in response to the electric signals generated by the loudspeakers respectively; third means for delaying input audio signals by delay times depending on the moments detected by the second means to generate delayed audio signals respectively; and fourth means for feeding the delayed audio signals to the loudspeakers respectively.

Baekgaard discloses convert a test sound generated at a desired listening point into corresponding electric signals respectively (col. 3 line 7-9, microphones); second means for detecting moments of arrival of the test sound at the loudspeakers in response to the electric signals generated by the loudspeakers respectively; third means for delaying input audio signals by delay times depending on the moments detected by the second means to generate delayed audio signals respectively (col. 3 line 27-31); and fourth means for feeding the delayed audio signals to the loudspeakers respectively (col. 3 line 37-42). Therefore it would be obvious to one of ordinarily skilled in the art at the time the invention was made to modify the loudspeaker system of Cohen in view of Gu with the signal processing apparatus of Baekgaard in order to be able to adjust transducer characteristics for optimal listening.

Claim 19, Cohen discloses a sound-field setting system comprising:

loudspeakers of plural channels (col. 1 line 7-9) and fifth means for feeding the delayed audio signals to the loudspeakers respectively (col. 3 line 1-3).

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Cohen does not disclose first means for using the loudspeakers as microphones to convert a test sound generated at a desired listening point into corresponding electric signals respectively; second means for detecting moments of arrival of the test sound at the loudspeakers in response to the electric signals generated by the loudspeakers respectively; third means for setting desired delay times for input audio signals of the plural channels in response to the moments detected by the second means; fourth means for delaying the input audio signals by the desired delay times set by the third means to generate delayed audio signals respectively;

Gu discloses first means for using the loudspeakers as microphones (col. 2 line 9-13).

Therefore it would be obvious to one ordinarily skilled in the art at the time the invention was made to modify the loudspeaker sound system of Cohen with the loudspeaker/microphone and switch of Gu in order to reduce the system components.

Cohen in view of Gu do not disclose to convert a test sound generated at a desired listening point into corresponding electric signals respectively; second means for detecting moments of arrival of the test sound at the loudspeakers in response to the electric signals generated by the loudspeakers respectively; third means for setting desired delay times for input audio signals of the plural channels in response to the moments detected by the second means;

fourth means for delaying the input audio signals by the desired delay times set by the third means to generate delayed audio signals respectively;

Baekgaard discloses microphones to convert a test sound generated at a desired listening point into corresponding electric signals respectively (col. 3 line 27-31); second

means for detecting moments of arrival of the test sound at the loudspeakers in response to the electric signals generated by the loudspeakers respectively; third means for setting desired delay times for input audio signals of the plural channels in response to the moments detected by the second means; fourth means for delaying the input audio signals by the desired delay times set by the third means to generate delayed audio signals respectively (col. 3 line 27-31).

Therefore it would be obvious to one of ordinarily skilled in the art at the time the invention was made to modify the loudspeaker system of Cohen in view of Gu with the signal processing apparatus of Baekgaard in order to be able to adjust transducer characteristics for optimal listening.

Claim 20 analyzed with respect to claim 19, Cohen in view of Gu and Baekgaard disclose sixth means for detecting amplitudes of the electric signals generated by the loudspeakers; seventh means for setting desired gains for the input audio signals in response to the amplitudes detected by the sixth means; eighth means for amplifying the input audio signals at the desired gains set by the seventh means to generate amplified audio signals respectively; respectively (Baekgaard col. 4 line 25-35) and ninth means for feeding the amplified audio signals generated by the eighth means to the loudspeakers respectively (Cohen col. 3 line 1-3).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FATIMAT O. OLANIRAN whose telephone number is (571)270-3437. The examiner can normally be reached on M-F Alt F off 8:30-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hai Tran can be reached on 571-272-7305. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FO

12/18/2007

/Hai Tran/

Supervisory Patent Examiner, Art Unit 4178